

# MISSOURI. Conservationist

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# Spring: A Gateway to Your Conservation Areas

Growing up, the start of spring was rarely ushered in by the calendar, but by the land around me preparing for a new season — green emerging on the trees, spring peepers loudly calling,

and the fish finally biting at the pond. What made spring flourish was more than just the changing of a season. It was the opportunity to again roam free in the great outdoors.

While some Missourians explore acres of land owned by their family for generations, I spent my childhood discovering nature on conservation areas close to home. It was my gateway to the outdoors. Conservation areas provided instant access to creeks and ponds, abundant wildlife, and trails winding through forests and grasslands. It was, and still is, some of Missouri's finest natural resources.

The Department manages nearly 1 million acres throughout the state for public use and habitat management. We hold the land in public trust, which means we diligently and proactively take care of the fish, forest, and wildlife resources as mandated by our mission, but these are your lands to explore, utilize, and enjoy. Conservation areas provide access to rivers, streams, and lakes with recreational uses such as trails, campgrounds, and shooting ranges. With more than 1,000 conservation areas across the state, these outdoor opportunities are close to home and available for all to access.

Public land also provides a unique financial benefit to local communities. In 1980, Missouri voters authorized revenue from the conservation sales tax to be used to make in-lieu-of tax payments to counties for the value of the conservation area land. The Conservation Commission evaluates the in-lieu-of



tax payment rate every five years. In 2015, the total paid to Missouri counties in lieu of taxes, levee drainage district, forest crop land, and county road assistance was more than \$1.6 million.

As the Department manages this important public resource, we also want to learn more about how conservation areas are being utilized by Missourians and why these areas are important to them. The Department encourages public comments on Conservation Area Management Plans by gathering feedback online at [mdc.mo.gov/areaplans](http://mdc.mo.gov/areaplans). This valuable feedback is utilized in drafting management plans for conservation areas around the state.

Finding a conservation area near you is easier than ever. Simply visit the Department's website, [mdc.mo.gov](http://mdc.mo.gov), and click on the interactive map right from your phone or tablet to find fun places

around you. You can also search for an outdoor adventure by activity (hiking, camping, canoeing, nature viewing, hunting, or horseback riding) or by a natural area you would like to enjoy.

Missouri is truly blessed with abundant fish, forest, and wildlife resources. Spring is the perfect season to see it up close. After all, this is your land to explore. Go enjoy it!



Robert L. Ziehmer, director

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*by Adam Doerhoff*

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*by Mark Goodwin, photographs by Noppadol Paothong*

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*by Mark Van Patten, photographs by David Stonner*

Landing trout in the wild takes knowledge, skill, and patience

Cover: A rainbow trout comes to the surface on the Current River. Photograph by David Stonner  
📷 35mm lens • f/6.3 • 1/250 sec • ISO 800

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## WHAT IS IT?

Our photographers have been busy exploring the intricacies of outdoor Missouri. See if you can guess this month's natural wonder. The answer is revealed on Page 7.



JIM RATHERT



## MINT SPRING

I've always enjoyed the *Missouri Conservationist*, but I enjoyed the February issue even more. The article on Mint Spring Conservation Area [Places to Go; Page 32] is in the area where I grew up, and where my children grew up. We all played in the waterfall when we were young. My children and cousins go there every chance we get, take lots of food, and picnic for hours. It's very special to us because my parents, grandparents, and great-grandparents also grew up in that area and walked the same soil we do today. We all appreciated the article and picture.

Mary V. Montcalm, Bland

## I AM CONSERVATION

Thank you for the article on the back of the February *Conservationist* [I Am Conservation] about Allan Appell in Henry County. Thank you Mr. Appell! Good job!

Erwin Dix, Saint Peters

## INSPIRED OUTING

My family rarely goes on family outings in the spring, but last year my mother saw an article in the April 2015 issue of the *Missouri Conservationist*, and we decided to give morel hunting a try. We were genuinely surprised at how fun it was and how tasty the mushrooms were. Now we are hooked and can't wait for spring. I want to thank you for printing the *Missouri Conservationist* and for helping my family start a new, fun tradition.

Aubrey Lee, via email

## NATURE AT NIGHT

I absolutely loved the article *Discovering Nature at Night* [December; Page 22]. Not only did I think the article was intriguing, but the many beautiful, dark pictures were very mesmerizing. I am a teenager who goes to early morning classes and then school. My days — like many other teenagers' days — are very busy so I rarely think to stop and appreciate my surroundings. I had absolutely no idea there were so many natural things happening at night like there are in the day. Because of that cool article, I am more inspired to take the time to look up.

Amiefawn Broadbent, Stockton

## CONSERVATION PRIDE

A recent article in the *Kansas City Star* described how MDC personnel are helping to manage a program to recycle wood from the many ash trees lost to the emerald ash borer (EAB) infestation, which otherwise would end up in landfills or as wood chips. The wood is being given to people who can turn it into furniture and other usable items. Another example of innovative, ecologically sensible action from our conservation department, and also an example of the great working partnerships continually being nurtured by MDC to keep our forests and other natural resources thriving and healthy for the benefit of all. This is a great idea that hopefully will catch on in other areas affected by the EAB.

Every time I read an outstanding new issue of the *Conservationist* or *Xplor*, I am so proud to be a lifelong Missourian and a supporter of one of the country's greatest state conservation organizations. Many citizens may not realize that

these publications and other MDC educational materials are invaluable for helping schools and nonprofit nature organizations (such as local Audubon chapters) fulfill their goals of educating the public about the birds, plants, wildlife, and ecosystems of Missouri. Keep up the great work!

Elizabeth Stoakes, Lee's Summit

## TREES WORK

With the right trees, anyone can have a natural air freshener. Fruit trees, such as apples, pears, and apricots, have very sweet-scented blossoms. Other trees, such as black walnut and cedar trees, have a scent of their own that is a little tangy but very nice in the late spring. And trees keep air pollution down. In the country, the sky is a gorgeous blue, while in and near the city, it's slightly off or has a gray tint to it. All because of the amount of trees in the area.

Lynnette Lee, via email

## Reader Photo



## POLYPHEMUS MOTH

Richard Webber of Clinton submitted this photo of a polyphemus moth that visited his flagstone patio. "The moth stayed on the patio for hours in the same place," said Webber. The polyphemus moth is the second largest moth that occurs in Missouri, and it is named after the giant one-eyed monster of Homer's *Odyssey* because of the big eyespots on each hindwing. Adults fly from mid-April through August. Webber and his wife enjoy attracting wildlife, both small and large, to their yard. "We have a bluebird house that birds nest in every year and raise young ones," said Webber. "We also have several large oak trees and lots of squirrels, and even some deer pass through once in a while."



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Instagram: [instagram.com/moconservation](https://www.instagram.com/moconservation)

Kids' site: [XplorMo.org](http://XplorMo.org)

Missouri Conservationist: [mdc.mo.gov/conmag](http://mdc.mo.gov/conmag)

Missouri Department of Conservation: [mdc.mo.gov](http://mdc.mo.gov)

Nature Shop: [mdcnatureshop.com](http://mdcnatureshop.com)

Twitter: [twitter.com/MDC\\_Online](https://twitter.com/MDC_Online) and [Nature\\_Videos](https://twitter.com/Nature_Videos)

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## KIDS' MAGAZINE

Six times a year we'll bring you eye-popping art, photos, and stories about Missouri's coolest critters, niftiest natural places, and liveliest outdoor activities. Come outside with us and XPLOR!

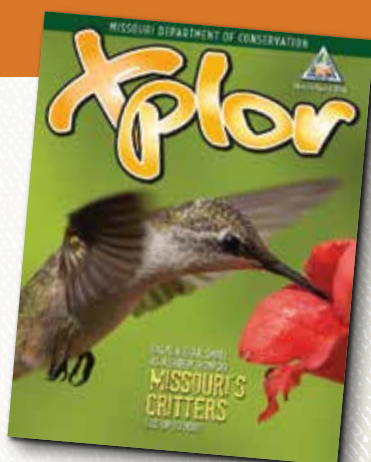
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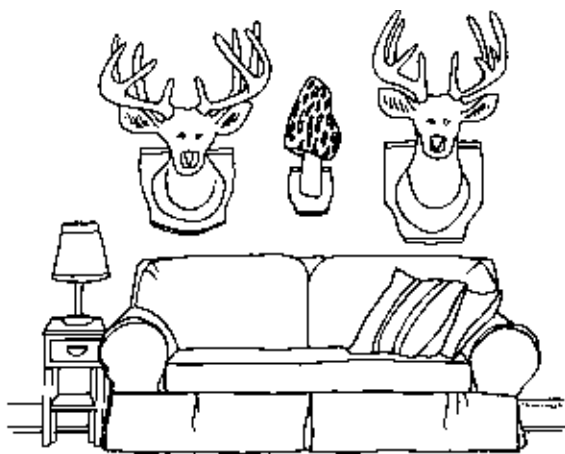
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## Agent Notes

### Conservation Agent Duties

THE PRIMARY WORK responsibility of a conservation agent is resource law enforcement — enforcing the rules and regulations of the *Wildlife Code of Missouri*. Agents also have a wide variety of other duties such as public relations, outreach and education, resource management, and other key Department programs.

Some duties are specific to the region or county in which an agent is assigned. For 28 years, I have been assigned to Oregon County where stocking trout on the Eleven Point River is one of my duties. Each year, I plan and conduct the stocking of 16,000 trout from Turner Mill Access to the Riverton Access downstream.

More than 50 years ago here in Oregon County, the late Conservation Agent Gene Woolverton, along with some citizen volunteers, began stocking trout throughout the entire stream reach, rather than stocking them from a truck at one location. The process involves unloading fish into float tubes attached to a boat, floating them downstream, and releasing them in numerous pools. This practice better distributes the fishing opportunities, usually within 4–5 miles per trip, making for a better quality fishing experience.

It has been my pleasure to continue this practice, which is now a common procedure on many of the state's trout streams. I hope to see you on the river.

*Paul Veatch is the conservation agent for Oregon County. If you would like to contact the agent for your county, phone your regional conservation office listed on Page 3.*



## HUNTING & FISHING CALENDAR

FISHING	OPEN	CLOSE
Black Bass from most streams south of the Missouri River	05/28/16	02/28/17
Bullfrogs and Green Frogs	Sunset 06/30/16	Midnight 10/31/16
Nongame Fish Giggling		
Impounded Waters	All year	None
Streams	09/15/16	01/31/17
Paddlefish	03/15/16	04/30/16
Paddlefish on the Mississippi River	03/15/16 09/15/16	05/15/16 12/15/16
Trout Parks (catch-and-keep)	03/01/16	10/31/16
HUNTING	OPEN	CLOSE
Coyote (restrictions apply during April, spring turkey season, and firearms deer season)	All year	None
Deer		
Archery	09/15/16 11/23/16	11/11/16 01/15/17
Firearms		
Early Youth Portion	10/29/16	10/30/16
November Portion	11/12/16	11/20/16
Late Youth Portion	11/25/16	11/27/16
Antlerless Portion (open areas only)	12/02/16	12/04/16
Alternative Methods Portion	12/24/16	01/03/17
Groundhog (woodchuck)	05/09/16	12/15/16
Pheasant		
Youth	10/29/16	10/30/16
Regular	11/01/16	01/15/17
Quail		
Youth	10/29/16	10/30/16
Regular	11/01/16	01/15/17
Rabbit	10/01/15	02/15/16
Squirrel	05/23/15	02/15/16
Turkey		
Archery	09/15/16 11/23/16	11/11/16 01/15/17
Firearms		
Youth	04/09/16	04/10/16
Spring	04/18/16	05/08/16
Fall	10/01/16	10/31/16
Waterfowl	see the <i>Waterfowl Hunting Digest</i> or <a href="http://on.mo.gov/1DChcmi">on.mo.gov/1DChcmi</a>	
TRAPPING	OPEN	CLOSE
Beaver and Nutria	11/15/15	03/31/16

For complete information about seasons, limits, methods, and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, *The Spring Turkey Hunting Regulations and Information*, the *Fall Deer and Turkey Hunting Regulations and Information*, the *Waterfowl Hunting Digest*, and the *Migratory Bird Hunting Digest*. For more information, visit [on.mo.gov/1Ucnlw](http://on.mo.gov/1Ucnlw) or permit vendors.



# Ask MDC

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Jacob Rehagen with white river otter

## **My son trapped this nearly all-white otter on the Maries River in early February. Do you know what might have caused the animal's unusual coloration?**

Otters typically are dark brown, even black, when wet. This otter could be considered “pied” or “piebald,” a term that means the animal has a spotting pattern of large, unpigmented, white fur and skin.

The underlying genetic cause likely is related to a condition known as “leucism,” a phenomenon in which there

is a partial loss of pigmentation in an animal, resulting in white, pale, patchy, even bleached-looking coloration of its skin, fur, feathers, or scales — but not the eyes.

It's interesting to note a key difference between being leucistic and being an albino is that albinos typically have pink or red eyes. This is due to a lack of melanin, which causes the underlying blood vessels to shine through. Unlike albinism, leucism is caused by a reduction in multiple types of pigment, not just melanin.

Otters aren't the only animals to

exhibit these tendencies. Other species — squirrels, birds, snakes, and more — exhibit them, too.

Although humans are fascinated by these arresting anomalies, their unique coloration comes at a price. Not only are leucistic or albino animals at greater risk of being seen by predators, they also may be at a disadvantage when finding mates.

## **When do dogwoods bloom?**

April 15–20 is a good time to look for flowering dogwoods. Blossoming normally peaks in mid-April in central Missouri. Blooming could occur a week earlier in southern Missouri or a week later in northern Missouri. However, spring weather can impact the timing, making it difficult to guarantee an exact date.

## **I'd like to be more successful at finding morel mushrooms. Do you have any tips for me?**

Morels begin to appear in April and early May, and the best time to go looking for them is after a few rainy days in a row. Although morels blend easily into surrounding leaf litter, anywhere from one to several will grow on the ground in deciduous woods, disturbed areas, and recently burned areas.

Black morels prefer to grow near white ash trees, while yellow morels especially like dying elms, living white ashes, and cottonwoods. But both will grow under tulip poplars, oaks, and hickories, as well.

When you are outside, go slowly, focus on details, and look closely at the ground. If you see a cache of edible mushrooms, don't take them all. Taking everything could mean fewer spores this season and meager mushroom crops in the years to come.

Beware of false morels. All true morels are hollow from top to bottom. Poisonous, false morels are reddish and have wrinkled, lobed, or brain-shaped caps and dense stalks.



## Talking Turkey: Landowner Permits Made Easy

Some Missouri hunters may qualify for no-cost, resident landowner permits — just in time for spring turkey hunting season — if they meet a few simple qualifications.

To qualify for these no-cost hunting permits, an applicant must:

- Be a Missouri resident who owns at least 5 continuous acres in one parcel, not

several scattered in the same area. It's important to clarify that these no-cost permits are available only to Missouri residents. Out-of-state landowners do not qualify for resident landowner permits, nor does Missouri offer discounted permits to nonresidents.

- Be involved in a corporation, partnership,

or managing member of a resident limited liability company. In the case of corporate ownership, only registered officers of the corporation and members of their immediate households can qualify to receive no-cost permits, and they are not required to live on the land. People who own stock in a corporation — shareholders — do not qualify under this definition.

- Be a Missouri resident who leases and resides on at least 5 continuous acres owned by someone else. It's important to note the lessee must both lease the land and live in a home on the property. Simply renting a house or procuring a hunting lease does not meet the two-part requirement and is not sufficient.
- Live in the home of a qualifying landowner or lessee for at least 30 days prior to applying for the permit. Immediate household members can be related or unrelated to the qualifying landowner or lessee, but family members who live elsewhere do not qualify.
- Be at least 6 years old.

Resident landowner permits can be obtained anywhere regular hunting permits are sold, including:

- Retail stores
- Online at [mdc-web.s3licensing.com/](http://mdc-web.s3licensing.com/). Print your permit at home and have it in hand immediately. The \$1 fee for online sales has been discontinued.
- Online using the MO Hunting App. This is a new option, and your permit will appear on the app immediately after purchase. For more information, visit [mdc.mo.gov/mobile/mobile-apps/mo-hunting](http://mdc.mo.gov/mobile/mobile-apps/mo-hunting).
- By phone at 800-392-4115. Only telephone sales incur a convenience surcharge of \$1.

When purchasing your permit, you will need:

- Your Conservation ID number, Social Security number, or driver's license number
- The county where your land is located
- The number of acres you own or on which you reside



No-cost resident landowner permits are not a license to harvest additional turkeys. Every hunter — landowners and non-landowners alike — may harvest only two turkeys during spring turkey season. Also, all resident landowner hunting permits are valid only on the land for which they are issued. And, finally, hunters must purchase regular permits to hunt on land that they do not own or lease and reside on.

Compared to surrounding states, Missouri offers some of the lowest-priced permits to resident hunters.

“Low permit prices compared to neighboring states keep healthful, sustainable outdoor activities affordable,” said Nathan Bess, permit services supervisor.

## 2016 Hunting, Trapping, Fishing Regulations Booklets Available

The Missouri Department of Conservation's *2016 Summary of Missouri Hunting and Trapping Regulations*, *2016 Summary of Missouri Fishing Regulations*, and *2016 Spring Turkey Hunting Regulations and Information* booklets are now available. The booklets contain information on regulations in an easy-to-read format, including changes from the previous season and new information for the year ahead. Get copies of the free booklets where permits are sold, at Department offices throughout the state (regional phone numbers on Page 3), and online at [mdc.mo.gov](http://mdc.mo.gov).

## A Sure Sign of Spring: FalconCam

If all goes well, bird lovers likely will be able to view nesting peregrine falcon chicks on two webcams this spring in St. Louis and Kansas City.

For the fifth year at the St. Louis location, the public has online access to FalconCam, a bird's-eye view of peregrine falcons raising their chicks. The project is made possible through a cooperative effort among the Missouri Department of Conservation, Ameren Missouri, and the World Bird Sanctuary.

The nesting box is securely located 168 feet above the ground of the Ameren Missouri Sioux Energy Center.

Last year, the live camera stream was viewed more than 80,000 times, peaking at more than 2,000 views per day in early April and May when the eggs were laid and the chicks hatched.

St. Louis falcon activities can be viewed via the FalconCam from 7 a.m. until 8 p.m. (CDT), seven days a week on Ameren's website at [AmerenMissouri.com/FalconWatch](http://AmerenMissouri.com/FalconWatch) and at [worldbirdsanctuary.org](http://worldbirdsanctuary.org).

Sanctuary experts will offer periodic website commentary about what's happening in the nest. The link will be available until nesting activity is complete and the young have left the nest.

A similar camera system will offer birding enthusiasts a view of a peregrine falcon nest

atop the American Century Investments building located north of the Country Club Plaza in Kansas City.

Both St. Louis and Kansas City falcon activities can be viewed via the Department's website at [nature.mdc.mo.gov/discover-nature/photos-live-cams](http://nature.mdc.mo.gov/discover-nature/photos-live-cams).

Urban Wildlife Biologist Joe DeBold said the birds use a skyscraper's tiers and ledges the same way they would a cliff towering over a river.

“They are the fastest animal in the world,



## WHAT IS IT?

### Eastern Chipmunk | *Tamias striatus*

Eastern chipmunks range widely in Missouri but are most common in the Ozarks. They prefer timber borderland rather than deep forests. They select wooded banks, log heaps, stone piles, broken rocky ridges, or rubbish heaps as sites for their tunnels and nest chambers. Occasionally they live around city homes and farmhouses, where they inhabit shrubbery, stone walls, and old outbuildings. They make a variety of calls, especially “chips” and a soft “cuck-cuck.” They make a trilling “chipp-r-r-r-r” when surprised. Chipmunks are food-storing animals, mainly eating nuts, seeds, and berries, particularly hickory nuts, acorns, beechnuts, hazelnuts, and walnuts, plus corn and wheat. Perishable foods such as mushrooms and many types of berries are relished but not stored. Breeding begins when hibernation ends in early March. Most young are born in April and May, and again in July and August. Females have one or two litters a year. The young start exploring aboveground when they are 5 or 6 weeks old. —photograph by Jim Rathert

(continued from Page 7)

having been clocked at 261 mph, and they hunt from the air,” DeBold said. “They plunge downward in a deep swoop, smacking their prey with an extreme blow.”

DeBold noted the nesting boxes offer the birds a crevice-like shelter to lay their eggs. The birds were already laying their eggs on a ledge at American Century when a nesting box was established to offer the peregrines an added degree of security.

## Be Bear Aware

In April, Missouri’s black bears rouse from hibernation and emerge from their winter dens. Bears are an exciting part of the state’s natural history, and they are making a comeback in the southern half of the state. Most live south of Interstate 44, but wandering individuals — mostly males — have been seen as far north as the Iowa border.

Although bears almost never attack people, taking a few precautions is sensible.

By following these guidelines to be bear aware, you will be able to stay safe in bear country and keep Missouri’s bears wild.

First and foremost, hikers and campers should stay alert and avoid confrontation. By making noise — clapping, singing, and talking loudly — and traveling in groups, you can better ensure you don’t startle a bear. It’s also a good idea to keep pets leashed and watch for bear signs such as tracks and claw or bite marks on trees.

“If you see a bear, leave it alone,” said Resource Scientist Jeff Beringer. “Make sure it has an escape route.”

If you do encounter a bear, it’s best to back away slowly with arms raised and speak in a calm, but loud voice.

“Walk away slowly, but do not turn your back to the bear and do not run,” Beringer advised.

Additionally, odors attract bears, so be sure to keep a clean campsite and store all food, garbage, and toiletries in a secure vehicle or strung at least 10 feet high between two trees.

Unfortunately, a fed bear is a dead bear. Never feed bears — on purpose or by accident.

Bears that have grown accustomed to getting food from humans may become aggressive and dangerous. When this happens, they have to be destroyed.

If you live or camp in bear country, don’t leave pet food sitting outdoors. Clean barbecue grills and store them indoors. Don’t use birdfeeders from April through October in bear country. Store garbage and recyclables securely until trash day. Use electric fencing to keep bears out of beehives, chicken coops, vegetable gardens, orchards, and other potential food sources.

Feeding bears makes them lose their natural fear of humans and teaches them to see people as food providers. They will learn to visit places like homes, campsites, and neighborhoods to look for food, instead of staying in the forest.

“Help bears stay wild and healthy, and keep you and your neighbors safe,” Beringer said. “Don’t feed bears.”

For more information on bear reports, visit [on.mo.gov/21GqYz7](http://on.mo.gov/21GqYz7).

## Department Offers Grants to Assist With Community Tree Care

The Department is now offering grants to assist government agencies, public schools, and nonprofit groups to apply for funding to help with the management, improvement, and conservation of trees and forests on public land. The Tree Resource Improvement and Maintenance (TRIM) cost-share grants can help communities fund tree inventories, removal, or pruning of hazardous trees, tree planting, and the training of volunteers and city/county employees to best care for community forests.

“By accessing this cost-share assistance, communities in Missouri have the opportunity to better plan and manage their trees,” said Department Forestry Management Chief Justine Gartner. “TRIM grant recipients focus on keeping their neighborhood trees healthy and thriving, which translates to a whole host of social, economic, and environmental benefits for the community and the state. Properly caring for your community’s trees helps make your town safe and beautiful.”

The TRIM grant program provides reimbursements of \$1,000 to \$10,000 to fund up to 60 percent of money needed for projects. Proposals are assessed on a competitive basis for their value to the community, the ability to promote, improve, and develop a community’s urban forest and economic feasibility.

TRIM applicants must submit completed applications by June 3. To assist potential applicants, the Department will hold TRIM grant workshops at the following locations:

- April 6 — Belle
- April 11 — Joplin
- April 12 — Springfield
- April 13 — West Plains
- April 19 — Lee’s Summit
- April 26 — Kirkwood
- April 26 — Columbia
- May 10 — Cape Girardeau

Workshop details and grant application forms are available at [on.mo.gov/1oRThsw](http://on.mo.gov/1oRThsw).





## Invasive Black Carp Discovered in Missouri

Department researchers in late February first documented evidence of invasive black carp reproduction in the wild in North America.

This means big problems for native river species, according to Department Resource Scientist Quinton Phelps.

"The discovery of reproductive-capable black carp means their population will expand, possibly unchecked," Phelps said.

The finding resulted after two small, unidentified carp were collected in a ditch directly connected to the Mississippi River near Cape Girardeau in November. Genetic analysis identified them to be juvenile black carp. Both were found to be capable of reproduction.

Black carp is just one species of invasive Asian carp that are found in many rivers in Missouri. They originally arrived in the United States with shipments of grass carp that were first introduced into farm ponds for control of parasites, then as a food fish. When they were introduced, regulations specified they be altered so they could not reproduce. Due to flooding, and cases of accidental release from bait buckets, they've spread in recent decades and thrive in many rivers.

This newly confirmed information about their reproductive capability suggests there are likely more adult black carp present in the river than biologists originally anticipated, Phelps said, which is a big problem. Invasive species in Missouri can be detrimental to the survival of native species. For example, Asian carp compete with native fish species for food sources. They're voracious eaters of native mussels, which are a vital species to the health of river habitat.

## DID YOU KNOW?

*Conservation makes Missouri a great place to hunt and fish.*

### Online atlas lets you browse over 1,000 places to hunt, fish, and discover nature

- Missouri's public conservation areas provide habitat for fish and wildlife and hunting, fishing, and nature-viewing opportunities for people.
- The Department's *Online Conservation Atlas* lets you search every conservation area in the state to find information on an area's recreation opportunities, management practices, regulations, hours of operation, and directions before you go.
- Visit [mdc.mo.gov/atlas](http://mdc.mo.gov/atlas), and search by area name, county, or region.
- You can also conduct a detailed search by activities, facility type, natural feature, disabled accessibility, designated trails, and shooting ranges.
- The Missouri Department of Conservation owns or cooperatively manages more than 1,000 conservation areas statewide. These include boating accesses, community lakes, shooting ranges, nature and interpretive centers, natural areas, management lands, memorial wildlife areas, and more.
- Some areas, like nature centers and hatcheries, have staffed visitor centers. Others have parking areas and access trails.

"Given that many of our mussel populations in the state are currently in jeopardy, additional consumption by black carp could drastically reduce their numbers," Phelps said.

Nearly two-thirds of the 65 species of mussels found in Missouri are of conservation concern. These freshwater mussels are filter feeders, meaning they clean impurities from the water. They provide food for native muskrats, raccoons, river otters, some birds, and many native fish species. Through their gills, mussels filter out

small particles from the water and transform them into food for fish and other animals.

Black carp consumption of native mussels and competition with native species could lead to an overall poor water quality system, directly affecting humans as well as native fish.

Although this news paints a discouraging picture, Phelps said it doesn't mean the fight against black carp is over. Instead, he said everyone can get involved in reducing their spread by avoiding accidentally introducing the species into new bodies of water when they dump bait, ensuring stocked fish come from licensed vendors, and sharing information about these practices with others.

Black carp sightings should be reported to the Department, either by contacting a fisheries biologist at the Southeast Regional Office at 573-290-5730 or by contacting Phelps and his colleagues at the Big Rivers and Wetlands Field Station in Jackson at 573-243-2659. For general information about black carp, go online to [on.mo.gov/1Q0eFoU](http://on.mo.gov/1Q0eFoU).




Black carp









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Use a cage-type  
trap to harvest  
rabbits, squirrels,  
and groundhogs  
with ease

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# BACKYARD HARVEST

BY ADAM DOERHOFF

**Live trapping  
is often  
the best  
management  
option  
for small  
properties.**

I POURED MY SECOND CUP OF COFFEE AND walked out the back door to check on the garden. As I passed through the yard, a rabbit ran out from behind the shed. I continued to the garden and started checking tomatoes for ripeness. I noticed how many had been damaged by rabbits. I was startled when another rabbit bolted from the zucchini growing behind me. I finished picking vegetables and walked across the field to my small sunflower patch. The plants were doing well except for those near the fence line, where it appeared rabbits had dined. In a few short minutes, four rabbits appeared around me. I walked back to the house and passed several of the seedlings we purchased from the state nursery. Yep — rabbits had dined there, too.

Rabbits 3, Adam 0.

I like that we have a lot of critters on our 7 acres, but I don't like them causing me fits. A love-hate relationship often exists with wildlife near homes and businesses. We like observing their world as long as they don't infringe on ours. So what is a person to do? Preventive measures — or various ways of letting an animal know your place is not the place to be — are a good starting point.

Common furbearers are the culprits in most wildlife damage cases around our homes. The *Wildlife Code of Missouri* describes the conditions by which these animals may be trapped and/or shot at any time of year (see 3 CSR 10-4.130 of the *Code* for more details). The *Wildlife Code* gives citizens both the authority and discretion to fix these problems. When we



NOPPADOL PAOTHONG



control nuisance wildlife outside the prescribed season, the wildlife captured shall be disposed of only in accordance with the instructions of an agent of the Department. Since the rabbits were damaging my various plantings, the regulation would allow me to trap and/or shoot the animals in July. But I didn't want to do that.

### Live Trapping as a Hunting Method

I'm a rabbit hunter, and I have a couple of rabbit-hunting dogs. I'll just wait until the season opens, I thought. But the way dogs run rabbits, we'd be off our 7 acres in a heartbeat. In addition, there are two adjacent roads and several neighbors. It's just not realistic to safely or practically hunt rabbits on our property. Then I remembered — a cage-type trap, also known as a live trap, is a permitted hunting method during the season.

During trapping season and with a trapping permit, rabbits may be trapped according to the regulations (Chapter 8 – Trapping) of the *Wildlife Code of Missouri*. But during the hunting seasons for rabbit, squirrel, and even groundhog, a cage-type trap is permitted at any hour as a hunting method (Chapter 7 – Hunting) when accompanied with a small game hunting permit. Any person under 16 and Missouri residents 65 and older are exempt, as are landowners with 5 or more continuous acres who pursue these animals on that land. The daily limit for rabbits is six, and may include no more than two swamp rabbits.

Using leftover fruit and vegetable scraps as bait, I set some traps near the house that winter and began trapping rabbits. I also strategically placed traps in high-traffic areas, and I caught those rabbits without bait.

### Practical and Easy

When using a cage-type trap for rabbits, squirrels, and groundhogs, the trap must be labeled with your full name and address or conservation number, attended to daily, and have an opening 144 square inches or smaller — 12 inches by 12 inches or 10 inches by 14 inches, for example. There is also no limit to the number of traps you may use.

Compared to traditional hunting methods, the use of a live trap is more discrete, which is a bonus on smaller properties. Unlike deer, turkey, and migratory birds, small game can be trapped or hunted with the use of bait. While fruits and vegetables are appealing to rabbits, squirrels are



suckers for corn, peanuts, and even peanut butter. And don't scoff at groundhogs. While they don't get much attention nowadays, many old-timers attest to the palatability of these vegetarians. Apples, lettuce, cabbage, or any kind of melon (or just the rinds) are all good bait for groundhogs. If none of those are handy, just snatch a handful of clover or other succulent grasses.

Once set up near your home, traps take little time or skill to tend, which makes trapping a perfect method for busy parents and curious kids. It only takes a few minutes a day to tend to a trap, and this can provide a child with some added anticipation and excitement before or after school. Tending to live traps are some of my earliest hunting memories, and I couldn't run back to the house fast enough knowing I had caught a rabbit. Likewise, this may also fill a niche for someone who has retired from hunting.

**A live trap can help harvest an animal that may elude you otherwise.**





Live traps  
are another  
way to  
help youth  
discover  
nature,  
like this  
groundhog.



### How to Setup

A variety of setups can work. A trap set out in the open will not likely catch animals as easily as one that is placed up against something, such as a house, shed, fence, or other object. If placing it against something isn't an option, try nestling it in vegetation. If you aren't having success, try

covering the trap with a piece of plywood, an empty feed sack, a square of carpet, or something else. The idea is to make the trap look like an inviting spot. Experiment and have fun with it.

### You Caught a Critter — Now What?

What to do with a trapped animal depends on your purpose. If you're trapping for practice instead of for food or nuisance control, you can simply release it. The Department advises against transporting and releasing a trapped animal to a new location. Highly stressed and unfamiliar with strange surroundings and habitat, a relocated animal can starve to death. If you're trapping for food and/or pelts, confinement to the cage trap allows you to dispatch the animal without damaging the meat or hide. The most ethical, humane, and practical way to quickly dispatch



an animal is to use a small-caliber firearm, such as a .17- or .22-caliber.

Safely discharging a firearm at close proximity to an animal requires a few simple considerations. First, move the live trap to an area with plenty of soil. Do not shoot with the trap set atop concrete, rocks, or other hard surfaces that cannot absorb the projectile. Some municipalities don't allow for the discharge of firearms within city limits, and you may not have a safe shot opportunity there anyway. If this is the case, go to private property that you either own or have permission to access.

Second, choose soft- or hollow-point ammunition, which will expand and transfer energy upon impact. This will also help slow the projectile's velocity and stop it. Be sure to put on safety glasses and hearing protection before aiming and firing. The muzzle of the firearm should extend into the trap to prevent the possibility of the projectile making contact with the trap and ricocheting. A rifle will put more distance between you and the muzzle, but a handgun will work as well.

Using a cage trap allowed me to harvest rabbits that I couldn't safely or practically hunt. The experience was simple and effective. I was able to reduce the number of rabbits on our property to a more appropriate level, provide meat for my family, and all without straying more than 30 yards from the house. ▲

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**Adam Doerhoff** is the conservation agent for Boone County. He enjoys hunting, fishing, and many other outdoor activities with his family.

### Time to Eat

As with chicken, beef, and pork, there are numerous ways to cook and enjoy squirrel, rabbit, and groundhog. Wild game meats are generally leaner than domestic meats and healthy, but because they're leaner, they can dry out easily and become tough by overcooking. It's recommended to use cooking techniques that either add or retain moisture. For this reason, marinades, sauces, and gravies are good choices. Below are some of my favorite easy recipes.

#### Italian Squirrel

Quarter your squirrel and marinate generously in Italian dressing overnight to a few days. Add any flavored vinegar to your liking because this will help tenderize the meat. Put everything in a crockpot on low for several hours until it begins to fall off the bone.

#### Smothered Rabbit

Quarter your rabbit and marinate in buttermilk overnight to a few days. Roll the pieces in self-rising flour that is seasoned to your liking. Brown each piece on both sides in a frying pan with a little oil on low-medium heat. Place in a baking dish and cover with cream-of-mushroom soup. Bake at 325 degrees for 60–75 minutes and enjoy.

#### Grilled Groundhog

Quarter your groundhog and refrigerate overnight to a few days in your favorite soy, teriyaki, or barbecue-based marinade. Add a little oil to your marinade to help retain moisture when cooking. Season and grill to your liking just as you would with anything else. For steamed instead of grilled, just wrap in aluminum foil before popping on the grill.

**Live traps are an easy and effective way to manage rabbits, squirrels, groundhogs, and other small animals near your home and business.**







# A GRAND OPPORTUNITY

**If you have grandchildren, you may be the perfect mentor to nurture their interest in the outdoors.**

**BY MARK GOODWIN | PHOTOGRAPHS BY NOPPADOL PAOTHONG**









“PAWPAW, COME QUICK!” I WALKED OUT OF THE kitchen and onto the patio to see what had caught the attention of my 5-year-old grandson, Chance.

“Look there! Look there!” he exclaimed, pointing to a broadhead skink clinging to the brick siding next to the kitchen window.

Using a technique I perfected when I was a boy, I moved closer, held my right hand in front of the skink, wiggled my fingers to get its attention, then slowly brought my left hand in from behind. At the right moment, I grabbed it.

“You got it, Pawpaw! You got it!” Chance yelled.

The skink struggled hard for a moment, then settled in my grip. We both admired the lizard — a male, tan and shiny, with bright orange-red on the sides of its head. It held its mouth open, ready to bite. I told Chance their bite feels like a strong pinch.

“You think he might eat a snickerdoodle?” Chance asked.

I laughed. “I don’t know. Go get one and try.”

Chance grabbed a snickerdoodle and put it up to the lizard’s face. The skink bit the cookie then quickly let go.



“Guess he likes bugs better than snickerdoodles,” I said.

We admired the lizard a little longer, then released it. I turned to Chance just as he took a bite out of the cookie — the one the lizard had just chomped.

Chance’s younger brother, Tristan, was napping and missed out on the excitement. But when the boys’ mom and dad came to pick them up, he got to tell them about our fishing trip behind the house.

“We played boom baby!” he said excitedly. Translation: They slapped the water with their canoe paddles. “And we walked on water!” Translation: I let the boys wade in the shallows.



Their mother called me that night to tell me the boys talked about the day's adventures all the way home. That made me a happy grandpa.

For generations, my family has used the outdoors as a source of fun, memories, and common ground — a means of keeping family close. When I first became a grandparent with twins, I knew I would enjoy sharing time with them in the outdoors, just as I had with my three children. Now, with seven grandchildren, I have learned that grandparents are key to sparking a child's passion for the outdoors.

### Special Status and Leisure Time

Parents today are busy. They work long hours while kids go to daycare or school. Evenings involve running to activities, meal preparation and clean up, baths, maybe a little playtime, and then bed. The pace is hectic.

Life at grandma and grandpa's house is much more relaxed. It's a great place for all kinds of fun activities, especially outdoors.

### Learning About Nature

Children are naturally curious about living things. Here are some simple steps I've taken to nurture that curiosity in my grandchildren.

The backyard is a great place to explore and look for wildlife. Let your grandchildren help make your yard wildlife friendly. Establish bird feeders and enjoy watching and indentifying birds as they stop to eat. Suet cakes and black oil sunflower seeds attract a variety of birds. Put out hummingbird feeders in spring, and add feeders as the hummingbirds increase. Let the grandkids help plant flowers that will attract butterflies. Add rock landscaping to provide habitat for toads.

Kids often enjoy capturing animals. Invest in a couple butterfly nets and small, plastic terrariums. Butterfly nets can be used to catch insects and a variety of other animals, while terrariums can be used as temporary quarters for a captured animal. Most kids enjoy making "homes" for the animals they catch by adding grass, sticks, and dirt to a container. At our house, toads often receive the most attention. With proper guidance, your grandchildren will understand the importance of releasing all animals at the end of the day. The animals will be there to catch again next time.



**By filling a bird feeder, Mark and his grandchildren hope to lure birds to the yard for watching and identifying.**

Consider purchasing a quality camera. Take photos of your grandchildren and the animals they capture and put together a photo album to preserve the fun. The beauty of a tiger swallowtail feeding on a purple coneflower, for example, might instill in your grandchildren an interest in photography. Let your grandkids take photos, too.

To help your grandchildren learn about the animals they find, put together a small collection of field guides. The Department offers a number of publications that feature excellent photographs and information. A small nature library at grandma and grandpa's will help your grandchildren develop an interest in books, which in coming years will contribute to making school a positive experience.



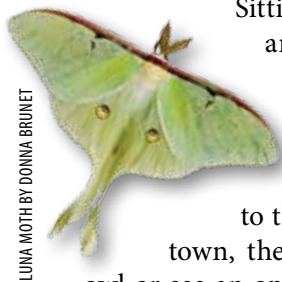




Spending the night at grandma and grandpa's is a special treat, and it can be a great time for kids to enjoy the outdoors. Buy a portable fire pit. Just before dusk, let the kids catch fireflies and put them in jars to be released later. Keep graham crackers, chocolate bars, and marshmallows on hand for making s'mores — always a big hit.

Sitting by the fire is a good time to observe and learn about night animals. By mid-summer, katydids are calling from the trees. After an evening shower, gray tree frogs often call. By late summer, tree crickets add their voice to the nighttime chorus. Even if you live in

town, there's the opportunity to hear a barred owl or see an opossum scurry across the yard. Leave a porch light on overnight so, in the morning, the grandkids can see what insects came to visit. Maybe they will find a luna moth sleeping on the screen door or a stag beetle on its back, trying to right itself. All offer great opportunities for photos to add to your photo album.



LUNA MOTH BY DONNA BRUNET

## Fishing

Fishing is an activity you can enjoy with your grandchildren at an early age. My wife, Crystal, and I began taking our grandson Jasper fishing when he was just over 2 years old. I remembered the fishing routine for my children when they were preschoolers — keep the trips safe, short, and fun. Safety is foremost. One negative fishing experience for a youngster can ruin an interest for a lifetime. Life jackets are a must, as is caution with fishing hooks.

Make fishing trips enjoyable by focusing on what the kids find fun. I planned one of Jasper's first fishing trips around a bluegill bed in the pond behind our house. At the time, fish were striking on practically every cast. Great opportunity for Jasper, I thought. We planned to hook a bluegill, then hand Jasper the pole. Jasper reeled in several bluegill, but what he most enjoyed was looking at the fish in the fish basket, leaning over the side of the canoe and splashing the water with his hands, and playing with the sculling paddle. Twenty minutes into the trip I asked, "Hey, Jasper. You having a good time?" He looked up at me with a big smile and exclaimed, "I yuv dis boat!" I knew then — mission accomplished.

The state's many clear creeks offer the best opportunities to introduce young children to fishing. Bring dip nets so they can try catching critters. The variety of animals found in streams also allows them to learn about other aquatic life. Bring a seine and catch live bait. The minnows, tadpoles, crayfish, darters, and hellgrammites will fascinate your grandchildren.

Cleaning fish is an excellent opportunity to teach your grandchildren where meat comes from — an





important part of understanding nature's design. At just over 2 years old, my grandchildren began helping me clean fish. When Jasper, at age 2, first watched me clean fish, I removed the first fillet, held it up and said, "This is what we eat." Jasper responded with a firm, "No, Pawpaw." He didn't equate that strip of raw fish with the fillets, fried golden and crispy, he so enjoys at mealtime. I explained to him we fry the fillets before we eat them. Then I asked if he would help by putting the fillets in the pan of cold water I had nearby. Jasper quickly became one of my fish-cleaning buddies. If I forget to hand Jasper a fillet and put it in the rinse bowl myself, Jasper, now going on 5 years old, says, "Hey, Pawpaw. That's my job."

## Hunting

If you are a grandparent who enjoys hunting, it's important to realize that many adults unintentionally turn youngsters away from hunting by introducing them too soon. Bringing home game often involves levels of patience and physical stamina that youngsters lack. As with all introductions to the outdoors, hunting must be made fun for a child.

For most youngsters, fun in hunting involves a fast pace and being part of the action. Dove hunting fits these requirements. If you have a spot where large numbers of doves frequent, you can take a child, even a preschooler. But, again, the hunt must be tailored to the child. Set up in the shade for comfort, bring comfortable chairs, and bring the youngster's favorite drinks and snacks. And, of course, the child must be accustomed to gunfire. A fun way for a youngster to take part in a dove hunt is let him serve as a retriever, running out and bringing back the doves you bag. Little ones also enjoy counting and keeping track of the number of doves bagged — a way to show off their math skills and to begin learning about hunting regulations and bag limits.

If you are a turkey hunter with a 6-year-old grandchild who is begging you to go turkey hunting, is it a good idea? Depends on the child. Sometimes turkey hunting



offers fast action, but most of the time it requires a lot of patience and sitting still.

As an alternative, buy her some camouflage clothing and plan an early-morning turkey-scouting trip. Bring hot chocolate and her favorite donuts. From the comfort of your truck, roll down the windows and listen to turkeys gobble. Let her play with your box call. Mix in plenty of hugs and praise. Youngsters want to please — hugs and praise serve as affirmation.

In all this time together, love, respect, and understanding grows between grandparent and grandchild and between grandchild and the natural world. The opportunity is grand. ▲

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**Mark Goodwin** is a retired teacher, avid outdoorsman, and freelance writer from Jackson, Missouri.



# Mastering Missouri's TROUT *in the* WILD

Landing trout in the wild takes  
knowledge, skill, and patience

**BY MARK VAN PATTEN** | PHOTOGRAPHS BY DAVID STONNER

**M**ENTION MISSOURI'S FOUR TROUT PARKS AND STAND BACK. TROUT park fans love them — they can't wait for the March 1 opener, and they love getting together with friends and family to catch some big fish. Trout parks are excellent places to practice landing lunkers, but if you're longing for something a bit more solitary, you might be ready to cast a fly for Missouri's trout in the wild. These trout have been stocked but have been in the river long enough to reestablish their wild trout behavior or were actually spawned in the river instead of being stocked. Their coloring and adaptive behavior is different than those freshly stocked trout in the trout parks.

RAINBOW TROUT BY JOSEPH TOMELLERI









**Mark casts into the riffles, where trout are likely to be feeding.**

Our state is blessed with 15 spring-fed trout streams that never close. Gear up and give one a try. It's a different trout-fishing experience, one that will test your skills and bring you close to the heart of wild Missouri. Find information about Missouri's trout areas on Page 27.

### Learn to Read the Water

You'll need a few new skills to make the transition from park fishing to wild trout fishing. The first is learning to read the water. This is because you won't often be able to see fish in the wild the way you can in the parks. Reading the water will help you know where the fish are, even if you can't see them.

Aside from cold, highly oxygenated water, trout have three fundamental needs: security, a break in the current velocity, and food supply. Since trout are not the top predators in the food chain, security is their first concern. Through natural instinct, fish sense the need for protection from predators. Places where they find protection are often undercut banks, drop-offs, fallen trees, rocks, and other underwater structures.

A fish must find habitat where the current is not too strong so it can rest between feedings. Fish will watch debris drift by and then dart out when food appears. The ideal spot for resting and feeding is a protected area along the edge of the current. Anglers call these spots "holding lies," and they can be found in several locations in almost any river, depending on flow. A successful angler will learn to recognize them: riffles, runs, pools, and eddies/pocket water.



**Riffles are the fast, shallow, and choppy parts of the stream.** The choppy action is actually dissolving oxygen into the water. Trout like highly oxygenated water and many of the macroinvertebrates (water bugs, also known as fish food) also prefer that habitat. So for the trout, choppy water is a perfect environment — lots of oxygen, and food, too. In addition, the choppy surface water makes it difficult for a heron or other predator to see them.



**Runs are shallow to somewhat-deep stream habitats** with swift-to-moderate velocities and minor surface turbulence below the riffles. A deeper run is an excellent place to fish with a sinking fly like a nymph or a streamer.





Very shallow runs are called flats, which are wide with even flow and low-to-moderate velocities and little or no surface turbulence. Flats often form a transition from the pool to the upper end of a riffle. They are shallow and generally the same depth from side to side. These areas are excellent places for fish to feed when an insect hatch is underway and fish can easily locate the insects without using much energy. However, with the shallow, slower-moving water, fooling these fish into taking your fly can be difficult. The fish have more time to scrutinize your dry fly. Careful casting and proper presentation with a fly that matches the hatching insects on the surface of the water will improve your dry-fly fishing success. This is called “matching the hatch.”



**Eddies are pockets of slower water that form just behind and downstream of rocks.** This pocket of slower water provides a break in the stream current and delivers a smorgasbord of food. Eddies are ideal areas for holding fish.



**Pools are the deepest parts of the stream.** These are great for fish to hold in. Food flows in and out of the pool continually. The narrow, downstream end of the pool is called the tail, and the upper end is the head. Larger trout generally feed at the head of the pool. All the other fish find suitable habitat throughout the pool and at the tail, where the channel narrows and food concentrates.

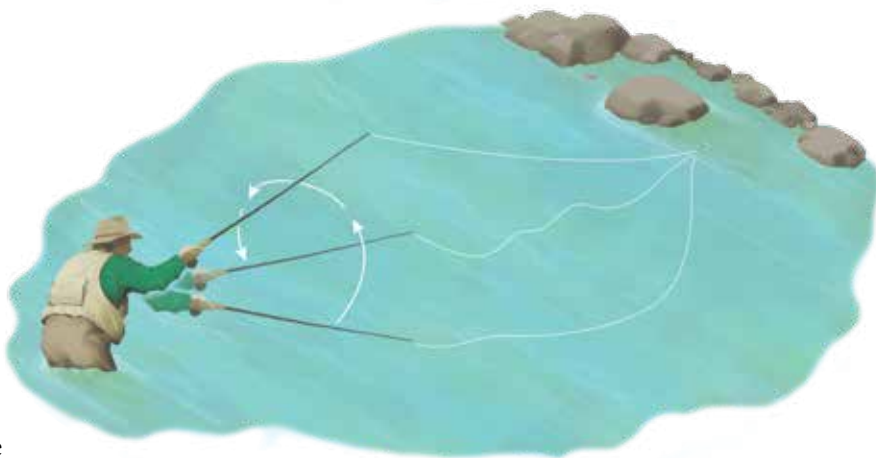
An important characteristic of stream flow is the transverse current. This is where two currents of different velocity meet and form a visible line of foam or debris known as a seam. More loosely defined, almost any place a trout feeds is a seam because trout almost always hold in slow water and feed in faster adjacent currents. But seams formed by two currents of different velocity are especially useful because they can help you find trout where no bottom obstructions break the current, or where you can't see the bottom. When two currents meet, there is always a pocket of relative calm within the turbulence, and often it is enough to form a place where trout can lie and feed, even when there are no rocks, logs, or other structure.



## Practice Mending for a Natural Presentation

When you cast your fly to the water, you are making a presentation to the fish. Keep in mind that the fish lives there and knows what its food should act like. Try to make your fly act like a natural insect. A dry fly needs to rest on the surface of the water, so you will need to be proficient at mending your line to allow for a longer, drag-free float. The insects the fish feed on are small and light, and they don't cut a "V" through the stream. The insect floats naturally with the current. If the fish sees the fly drag on the surface, it will turn away or just completely ignore the offering. If you present a wet fly or nymph, you need to know that the water will be moving more slowly along the bottom than it does near the surface. This is because of the friction created by the rocks and logs. You will need to "mend your line" to let the fly move along the bottom at a speed the fish are accustomed to seeing.

Mending the line is using the last part of the cast to throw a belly of line upstream of the fly. This will allow a



wet fly or nymph to sink and drift at the same speed as the water at the bottom of the stream, mimicking the natural speed and behavior of real insects. You can use mending when fishing a dry fly, too. If your dry fly needs to land along the far bank where the water is moving more slowly than the water in the middle of the stream, the fly will quickly begin to drag as the faster current drags the line downstream. Mending the line upstream gives the dry fly a longer, drag-free float time. Mastering the various

ILLUSTRATION BY LES FORTENBERRY

**Mark mends his line upstream to keep the fly from dragging.**





styles of mending the line to deal with different current speeds and tricky cross currents will increase your fishing success, whether you are fishing in a park setting or in the trout streams outside of the parks.

### Practice the Art of Stealth

Not too many years ago I was fishing one of my favorite small trout streams, where an ancient sycamore tree hangs out over the water. I sneaked up and leaned down on the tree to watch from above. A nice-sized rainbow trout slipped in and out of the foam line, feeding on various insects, when suddenly it disappeared. I knew it hadn't seen me because I hadn't moved. Suddenly, something 75 yards upstream caught my eye — another angler. I watched her wade and fish her way down the middle of the stream until she disappeared around a bend. As soon as she was out of sight, the trout reappeared and began feeding. I had observed a very good lesson: the big fish are big because they're sensitive and smart. The lateral line, a system of sensory structures that lies along each side of a fish's body, detects movement and vibration. Once the trout sensed vibrations of the angler's approach, its superior survival instincts drove it to cover.

In small streams approximately 10 to 15 feet wide, it is best to approach a prospective lie from the bank and not by wading in the stream. Keep a low profile and hide behind bushes. This is because refraction makes you appear about 33 percent bigger than you are. A 6-foot angler on the bank will appear 9 feet tall to a trout. Fish are nearsighted, so they don't perceive detail, but they can detect sudden movement, especially from a casting line.

On larger streams, it is better to wade. Objects observed at a lower angle to the fish, such as a wading angler, appear distorted and movement is not as easily observed. The nearsighted fish isn't sure what it is seeing.

Trout see color, too. If you show up at streamside wearing a brightly colored fishing hat and T-shirt, your chances of catching fish in natural settings are reduced exponentially. Earth-tone colors are always a good bet for clothing and gear.



### Browse Missouri's Trout Areas Online

Missouri has a wealth of trout waters, including red, white, and blue ribbon streams. Our *Trout Areas* Web page also includes listings for Lake Taneycomo, all four trout parks, winter trout areas, and links to area regulations, brochures, and maps. Visit [on.mo.gov/1QJ16Nk](http://on.mo.gov/1QJ16Nk).





### Monofilament Recycling Saves Wildlife

As responsible anglers, we all need to do what we can to protect our sport and Missouri's waters. Always pack out more than you pack in, and use the monofilament recycling bins scattered throughout our trout parks. Go a step farther, and adopt a bin to install and monitor on one of our wild trout stream accesses. Visit the Missouri Stream Team website at [mostreamteam.org/mrrp.asp](http://mostreamteam.org/mrrp.asp) to find and fill out the Volunteer Agreement form. Return it, and we will provide you with the number of fully assembled bins you request. For more information, email Mark Van Patten at [mark.vanpatten@mdc.mo.gov](mailto:mark.vanpatten@mdc.mo.gov), or call 573-522-4115, ext. 3892.



Rainbow trout



Brown trout





## Don't Spread Didymo

If you're a trout angler, you probably know that didymo, also known as "rock snot," is bad news for fishing. Not only does this invasive algae's stringy threads snag tackle, it smothers aquatic insects and fish eggs. The nearest infestation is in the White River just south of the Missouri-Arkansas border. Be sure to check, clean, or dry all wading gear and fishing equipment before entering any of Missouri's trout streams. Once rock snot infests a trout stream, there is no treatment.



**Didymo**

FISH AND GAME NEW ZEALAND



## Wild Trout Fight Harder

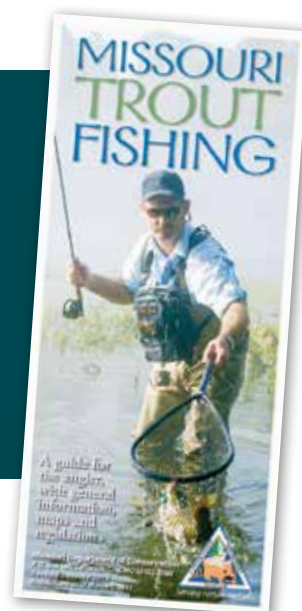
Trout in the wild fight harder and longer than the freshly stocked park trout. Knowing this will help you land these flashes of lightning. Let them run and don't be surprised when they leap from the water several times. Don't give them any slack line, or they will shake your hook loose. But don't horse them. They will break your line faster than you can say, "He broke me off!"

Missouri's trout parks are great places to fish with family and friends, and the odds of actually catching and landing a fish are high. But if you're ready to match wits with a master survivor, take a trip to one of Missouri's wild trout streams and let the adventure begin. ▲

***Mark Van Patten** is a fisheries biologist with the Missouri Department of Conservation. He has spent 50 years pursuing any species of fish that can be enticed to take a hand-tied fly.*

## Free Missouri Trout Fishing Map

Order your easy-to-carry guide with general information, maps, and regulations for all of Missouri's trout fishing areas. Write to MDC, Missouri Trout Fishing Map, PO Box 180, Jefferson City, MO 65102, or email [pubstaff@mdc.mo.gov](mailto:pubstaff@mdc.mo.gov) with your request.





## Jack-in-the-Pulpit

BACKLIT BY A soft sunrise, Reverend Jack holds services from his leafy pulpit atop a creek bluff in the Shaw Bottomland Forest Natural Area along the Meramec River in Franklin County. Native to Missouri, the jack-in-the-pulpit (*Arisaema triphyllum*) has been the subject of such descriptive folklore for as long as most can remember.

The character “Jack” is really a club-like structure, called a spadix, which is surrounded by tiny flowers that are protected by a modified leaf called a spathe. This overhanging canopy represents Jack’s “pulpit,” at least to the more imaginative of nature lovers.

Jack-in-the-pulpit blooms from April to June, and it was in mid-April last spring when my friend Bill and I ran across this specimen. I was mostly interested in photographing migrating warblers that morning, but Bill’s ever-present botanical curiosity drew us up a small creek in search of wildflowers. It wasn’t long before he spied the jack-in-the-pulpit on top of an 8-foot high bluff above the creek, and suggested it would make a nice photograph. I was immediately taken by the unique plant, with its green spathe, streaked in brown and white, and prominent floral structure.


Always the pragmatist, I turned to Bill and said, “How am I going to photograph it? It’s too high up on the bluff to get an eye-level shot that will include the most important part of the plant.” Bill responded, “It’s in the perfect position because you will be looking up at the plant, so Jack won’t be obscured by the pulpit’s canopy.” Then I whined, “But I’ll be shooting right into the sun.” Without hesitation, Bill replied, “Yep, it will be beautifully backlit.”

Confident of my friend’s wisdom, I scrambled up the hill, grounded my tripod, and began photographing the legendary wildflower, which stood about a foot tall. As I tried different shutter speeds and aperture settings, balancing sharp focus with better depth-of-field, I yelled to Bill, “I’m really loving these images!” As usual, Bill just nodded his head in a friendly, “I told you so.”

Jack-in-the-pulpit is found statewide in moist upland and bottomland forests and along the bases of moist, protected bluffs. One of the unique features of the species is it can have both male and female flowers or only one or the other. It can also change its gender characteristics from year to year. After flowering, jack-in-the-pulpit produces clustered berries of green that eventually turn brilliant scarlet.

Jack-in-the-pulpit contains calcium oxalate crystals that may cause a skin rash in some people so they should be approached with care. Also called “Indian turnip,” the corms of jack-in-the-pulpit were ground into flour by Native Americans. I suppose they had their own name for this captivating wildflower. Whatever it’s called, it’s one of many treasures of the forest floor that can be found every spring in Missouri.

—Story and photograph by Danny Brown

 70-200 lens • f/14 • 1/10 sec • ISO 200

*We help people discover nature through our online Field Guide. Visit [on.mo.gov/1M3cWgI](http://on.mo.gov/1M3cWgI) to learn more about Missouri’s plants and animals.*









## August A. Busch Memorial Conservation Area

*Located 30 miles from downtown St. Louis, this St. Charles County area provides a great way to escape the fast pace of urban life and reconnect with nature.*

THE 6,987-ACRE AUGUST A. Busch Memorial Conservation Area offers lots of wide-open space and outdoor opportunities for spring. The nearly 25 miles of public roads throughout the area provide easy access to nature. There are 28 fishing lakes and several smaller walk-in ponds scattered across the area that provide fishing opportunities for a variety of species. Deer and turkey hunting opportunities are also available through the Department's managed hunt program. In addition, small game hunting opportunities for rabbit, squirrel, and dove abound. The Busch Area is also a wonderful place to bird, with a recorded 265 species that use the area for nesting, overwintering, or as stopover habitat during migration. Mushroom hunting also piques the interest of many users each spring — a few prized morels can be found by those with good eyes and a little luck. A self-guided auto tour is available and takes visitors through the area to several locations including lakes, trails, and historic features. Another attraction is the newly renovated Archery Range Complex, which contains seven shooting positions ranging from 10 to 40 yards, an ADA-accessible elevated shooting platform, and two 14-target walk-through ranges. Other activities visitors may enjoy are wildlife viewing, outdoor photography, or simply an escape from the urban landscape.

One reason for excellent hunting and wildlife-viewing opportunities is Busch's diversity of habitats, including woodlands, grasslands, wetlands, and agricultural fields. Many of the woodlands have



16-35mm lens • f/5.6 • 1/100 sec • ISO 1600 | by David Stonner

become overrun by bush honeysuckle, an invasive plant, but managers are using a variety of methods to help reduce its spread. Once the bush honeysuckle is controlled, woodlands are thinned and burned to promote the growth of a diverse mix of plants that attract deer, turkey, small game, songbirds, and insects.

The Conservation Department purchased the Busch Area in 1947 with help from a donation by Mrs. August A. Busch, Sr., as a memorial to her late husband. The property was previously owned by the federal government and used by the Army during World War II as a trinitrotoluene (TNT) munitions plant to support the war effort. One hundred of the old TNT storage bunkers still stand on the area today.

—Raenhard Wesselschmidt, area manager



### August A. Busch Memorial Conservation Area

**Recreation Opportunities:** Hunting, fishing, wildlife viewing, outdoor photography, bird watching, dog training

**Unique Features:** Oak woodlands, restored prairie, seasonal wetlands, archery range complex

**For More Information:** Call 636-441-4554 or visit [on.mo.gov/225KuSb](http://on.mo.gov/225KuSb)





# MDC DISCOVER nature

To find more events near you, call your regional office (phone numbers on Page 3), or visit [mdc.mo.gov](http://mdc.mo.gov) and choose your region.

## HERITAGE DAY

**APRIL 16 • SATURDAY • 10 A.M.–2 P.M.**

*Ozark Region, Twin Pines Conservation Education Center, RT 1 Box 1998, Winona, MO 65588*

*No registration required, call 573-324-1381 for more information*

*All ages*

Join us as we celebrate the Ozark's rich heritage of sustaining Missouri's fish, forests, and wildlife. There will be live music, demonstrations on the wise use of our natural resources, and a no-cost fish fry while supplies last.

## FOREST AND WILDLIFE WORKSHOP

**APRIL 16 • SATURDAY • 9 A.M.–1 P.M.**

*Central Region, 8801 Little Tavern Creek Rd., Portland, MO 65067*

*Registration required, call 573-564-3715, ext. 110 by April 12*

This workshop will give landowners a better understanding of the benefits of managing wooded areas on their property.

## DISCOVER NATURE — SHOTGUN SHOOTING BASICS

**APRIL 23 • SATURDAY • 8:30–11:30 A.M.**

*Southwest Region, Andy Dalton Shooting Range and Outdoor Education Center, 4895 N. Farm Road 61, Ash Grove, MO 65604*



*Registration required, call 417-742-4361*

*Ages 12 and older*

Join us to discover the joys of shotgun shooting. We will discuss shotgun parts, stance, dominant eye, mounting and moving the shotgun, and much more. You may use our shotguns or your own. Please make sure your shotgun is completely unloaded before you arrive at the range.

## BATS OF MISSOURI

**APRIL 27 • WEDNESDAY • 6:30–7:30 P.M.**

*Southeast Region, Cape Girardeau Conservation Nature Center, 2289 County Park Drive, Cape Girardeau, MO 63701*

# 6

## IDEAS FOR FAMILY FUN

*Registration required, call 573-290-5218  
beginning April 1*

*Ages 8 and older*

Missouri is home to at least 14 different species of bats. Learn about them, where they live, how common they are, and methods used to research and monitor them. We will also explore and discuss the importance of bats to the environment and humans as well as current threats to these fascinating creatures.

## GO NATIVE

**APRIL 16 • SATURDAY • 9:30 A.M.–2:30 P.M.**

*Kansas City Region, Anita B. Gorman Conservation Discovery Center, 4750 Troost Ave, Kansas City, MO 64110*

*No registration required, call 816-759-7300 for more information*

*All ages*

Are you tired of constantly watering and weeding your landscape plants? If so, try replacing those plants with native flowers and grasses. Native plants can tolerate our tough Missouri weather much better than nonnative varieties. Join us for a day of learning about the wide variety of native plants that can suit your landscaping needs. While you're here, transplant and take home some native trees, grasses, or flowers to add trouble-free beauty to your landscape.

## BIRD ID AND FLYWAYS DISCOVERY TABLE

**APRIL 30 • SATURDAY • 10 A.M.–2 P.M.**

*St. Louis Region, St. Louis Regional Office, 2360 Hwy D, St. Charles, MO 63304*

*No registration required, call 636-441-4554 for more information*

*All ages*

Learn to identify birds and their migration highways in the sky. Then go view birds in their natural habitats!





Subscribe online • [on.mo.gov/1E6osBA](https://on.mo.gov/1E6osBA) • Free to Missouri households



## I Am Conservation

Monty and Mary Wheeler share a lifelong dedication to farming and a love of the outdoors. Both enjoy fishing, are active in the Tri-Lakes Fly Fishing Club, and are involved in several farm-related organizations. They own and run cattle on the 82-acre tract of Polk County land north of Bolivar where Monty grew up. By the early 2000s, the Wheelers had grown tired of watching their pasture being eroded by Ables Creek, a stream that crosses their farm and flows into the Pomme de Terre River. Receiving technical and financial assistance from the Missouri Department of Conservation, the Wheelers put in a cedar tree revetment along a cut bank on the creek's east side. Fencing was also constructed along the stream to keep out the cattle and allow a 50-foot streamside corridor to grow. "It completely fixed the erosion problem," Monty said. "We now have sycamores and willows growing along the creek." In addition to preserving grazing land, the Wheelers also are happy that this project has benefits for Ables Creek, the Pomme de Terre River, and the Pomme de Terre Reservoir, further downstream. "It was a really good project all the way around," Monty said. "I can't stress that enough." —*photograph by David Stonner*